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ABSTRACT

This paper discusses the policy dimensions to increase the nation's educational capital by providing at least two years of education beyond high school for almost every young and working-age adult who is motivated and able to benefit. It focuses on creating multiple pathways resulting from collaborative efforts across educational sectors or redesigned structures. Section 1 describes the economic and social imperatives for significantly increasing higher education access and attainment in the population. Section 2 addresses public policy challenges to achieving this goal. Section 3 identifies the elements of the public policy infrastructure needed for large-scale educational reform, with particular attention to accountability systems and finance and governance changes. It suggests these three characteristics to make state-level accountability more effective: provide a diagnosis, monitor progress, and use information for improvement. Examples are provided of successful governance and decision making initiatives and of allocation and reallocation of resources. The final section makes observations on the political challenges that must be addressed to extend access to postsecondary education to all. (Contains 16 references.) (YL3)

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Multiple Pathways and State Policy:
Toward Education and Training Beyond High School

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Multiple Pathways and State Policy:
Toward Education and Training Beyond High School[1]

A seismic economic shift has changed the rules by which Americans strive to get ahead in society. Hard work, once the bedrock of opportunity, is no longer sufficient, in and of itself, to ensure individual prosperity and security for either individuals or the larger community. The consequence of this new economy, compounded by national demographic changes, is that workforce requirements and civic responsibilities combine to demand ever-increasing, individual knowledge and skills. The education and training that most Americans require to fully participate in our economy and society are not simply education credentials but the specific knowledge and skill levels that the credential implies.

Public policy should recognize these changes by assuring that almost all Americans have access to at least two years of education and training beyond high school. New policies would move toward this goal by engaging the full range of education and training programs, regardless of the education provider, in the creation of multiple pathways resulting from collaborative efforts across educational sectors or redesigned structures.

Multiple pathways do not imply multiple standards—but rather clear standards at various levels and many ways of moving toward the standards. In this sense, we agree with Marc Tucker's conceptualization of multiple pathways as "clear gateways and many flexible paths between these gateways."[2]

We begin by describing the economic and social imperatives for significantly increasing higher education access and attainment in the population. The second section addresses public policy challenges to achieving this goal. Third, we identify the elements of the public policy infrastructure needed for large-scale educational reform, with particular attention to accountability systems and finance and governance changes. We conclude with observations on the political challenges that must be addressed to extend access to postsecondary education to all.

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[1] Jobs for the Future commissioned this paper for the project, *Redesigning High Schools: The Unfinished Agenda in State Education Reform.* This two-year project focuses on the issues that states need to address if they are to promote changes in high schools and communities that enable all youth to achieve at a high level. The National Governors Association Center for Best Practices, Achieve, and the National Conference of State Legislatures are JFF's partners in this effort. JFF's primary role is helping identify key policy issues and preparing issues papers for governors and their policy advisors.

[2] For more information, see: "High School and Beyond: The System is the Problem and the Solution," draft paper, Jobs for the Future, October 2002, p. 10.

The New Economic Imperative

In the new global economy, prosperity for nations and states requires significantly more workers with higher levels of knowledge and skills. In May 2002, *Business Week* warned employers of an impending "wrenching manpower and skills shortage," especially of college-educated workers, as labor force growth slows and baby boomers retire, even assuming the current high pace of immigration of recent years (Bernstein 2002). Large proportions of the young Americans available to enter the workforce will come from the low-income and demographic groups that are least well served by American education at all levels—those who have the lowest rates of completing high school and enrolling and persisting in college, including students of color, first generation college-goers, and English language learners.

A recent analysis of U.S. Census data by Graham Toft of the Hudson Institute projects a *net increase* of people with *less* than a high school education through 2020 (Toft 2002).[3] Although Toft projects modest increases in the numbers of those who are college-educated, his major finding predicts a severe mismatch between educational attainment of young workers and the escalating knowledge and skill requirements of the new economy. According to the 2000 census data, of the 34.6 million 16- to 24-year-olds in the labor force, 47 percent were enrolled in neither high school nor college (U.S. Bureau of Labor Statistics 2001). Clearly, these young people represent a reservoir of workforce knowledge and skills—but only if states and educational institutions see it as their mission to ensure "no child (or adult) left behind."

Throughout the world, the pressure to develop human talent by raising educational levels extends to higher education—that is, to education and training beyond high school. The most successful nations in developing human talent through the postsecondary levels will have enormous competitive advantages over those that do not. For the half century that followed World War II, the United States was the leader in extending educational opportunity beyond high school and in raising educational achievement levels. However, despite modest improvements in the 1990s, America's leadership in higher education has eroded; several Western European nations have emulated, pursued, and surpassed the United States in college access and college attainment (Organisation for Economic Co-operation and Development 2001).

According to Roberts Jones, president of the National Alliance of Business, between 1980 and 1997 American postsecondary enrollment grew by an average annual rate of 1.1 percent, while average annual enrollment in China grew by 15.6 percent and in Indonesia by 19.1 percent. If these and other countries sustain such rates, it will take only a few decades for their higher education enrollment rates to surpass those of the United States (Jones 2002).

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[3] See also, U.S. Census Bureau 2000.

The Public Policy Challenge to Educational Attainment

The 2002 passage of the federal *No Child Left Behind* legislation reflects broad acceptance, at least in principle, of a national priority on education that serves all young Americans effectively.[4] This principle must be applied to the entirety of American education. From preschool to college, the economic and societal imperative is to raise the knowledge and skill levels of virtually all Americans—to make it easy and probable that most of them complete high school or the equivalent and at least two years of further education and training.

Our discussion centers on public policies needed to educate most Americans to higher levels, and thereby to significantly enlarge the country's "educational capital," the reservoir of individual knowledge and skills that constitutes the country's major societal and economic asset. Particular emphasis should be placed on the nation's young adults (18- to 24-year-olds) and working-age adults (25- to 49-year-olds)—workers and future workers in their prime working years.

Within the American federal system, the primary public policy responsibility for elementary, secondary, and higher education resides with the states. Explicit public policy goals and sustained policy attention by the states and higher education leaders are necessary conditions for increasing educational attainment. Although state policy will not, in itself, assure unprecedented educational gains, these gains are unlikely in the absence of an effective policy "infrastructure." Such infrastructure would set clear goals and use incentives to leverage change in diverse areas, including accountability, public finance, and governance. Redesign of state policy to address the economic and societal conditions of the twenty-first century is a daunting task, one that must reach myriad elements of higher education, including admissions, institutional design, curricula, and assessment. In the absence of a supportive public policy framework, educational change on a large scale is unlikely.

Creating the framework for new public policies will require reaching a balance between, on one hand, the interests of the state and the public, and, on the other, those of colleges and universities and their faculty. The states' heavy responsibility for higher education carries with it potential for significant control. Historically, however, the states' *de jure* control has been exercised lightly, in large part because of an implicit consensus that the interests of higher education were synonymous with the public interest and that the public interest would be best served by substantial institutional autonomy. To put it another way, political leaders have generally deferred to college and university administrators and faculty. This consensus and deference have eroded over time as higher

[4] On January 8, 2002, President Bush signed into law the *No Child Left Behind Act of 2001: Reauthorization of the Elementary and Secondary Education Act*. This act is the most sweeping reform of the *Elementary and Secondary Education Act* since ESEA was enacted in 1965. It defines the federal role in K–12 education and is intended to help close the achievement gap between disadvantaged and minority students and their peers.

education has increased its student enrollment levels, numbers of campuses, and share of state budgets. Nevertheless, the concept of institutional autonomy remains powerful.

The balancing of institutional and public interests will be critical and difficult at a time when higher education is central to the welfare of most individuals and of society. Requirements for public accountability are certain, we believe, to be more demanding than the historic, almost exclusive reliance of professional judgment of educators; professional judgment, we believe, must be supported and supplemented by evidence. An effective balance will be achieved if, within the higher education community and among public policymakers, there is leadership around and commitment for expanding access and attainment, as well as appropriate funding and accountability. Absent such agreement, counterproductive public policy interventions are likely—for example, the misuse of standardized testing. If educating most of the people is as important as we believe it is, society is highly unlikely to excuse higher education from substantive accountability for its work.

Enrolling the nation's current "tidal wave" of young adults now graduating from high schools through 2009 in higher education is only part of the challenge.[5] The demand for educated workers requires that more individuals—many of whom now attend either poor or mediocre high schools and many of whom dropped out of high school years ago—must be seen as potential students for education and training beyond high school. The focus on young adults (18- to 24-year-olds) and working-age adults (25- to 49-year-olds) targets the age groups most likely to yield the greatest return on public investment because of their future earning years as workers.

Over the past two decades, the principal attention of the country has been on elementary and secondary education, but the problems of underachievement that begin in elementary and secondary education are systemic and not confined to those levels. For every 100 ninth graders, 67 graduate from high school, 38 enter college, 26 are still enrolled in college after their sophomore year, and 18 graduate from college within 6 years. That is, only 18 out of 100 ninth graders graduate from high school on time, go directly to college, return for their second year, and graduate from college in six years.[6]

The achievement of nearly universal high school completion and participation in education and training beyond high school represents a new challenge to all of

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[5] In 2009, at the peak of the tidal wave, approximately 3.2 million students will graduate from American high schools, according to projections from the National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, http://nces.ed.gov/nationsreportcard/about/statepartic2002.asp.

[6] See the Web site of the National Center for Higher Education Management Systems, http://higheredinfo.org.

American education and to the public policies that undergird it. The changes—in both policy and practice—required to dramatically raise educational capital may be of the order of magnitude of the changes the nation experienced after World War II, when the elite system of higher education was transformed into a system of mass higher education to accommodate far more young adults and veterans than many thought possible. American education as currently configured will continue to serve many students well, but it is unlikely to realize the ambitious goal of effectively serving a larger and more heterogeneous population without significant modification.

The postsecondary education sector—including public, private, for-profit, and not-for-profit institutions—represents the nation's principal resource for the education of all American adults who are able and motivated to benefit from education and training beyond high school. These resources must be mobilized in the interest of ratcheting up educational attainment of entire state populations. With all reasonable speed, almost all higher education institutions will have to collaborate with high schools, adult learning centers, and community organizations to ensure that most American adults achieve a high school diploma or its equivalent and are prepared to undertake some form of postsecondary education and training. At the same time, colleges and universities will be called upon to accommodate unprecedented numbers of students in certificate and degree programs. In many instances, partnerships with the private sector and other large employers will also be required. In the remainder of this paper, we offer selective perspectives on public policy changes to increase America's educational capital.

Redefining Accountability: Toward Performance-Based Educational Outcomes

A critical policy strategy—once the goal of significant increases in state educational capital is clearly articulated and accepted—is a redefinition of accountability. The substance of accountability must ultimately be based on specific educational outcomes and performance—that is, on the knowledge and skills achieved by individuals at the various levels of education.

For colleges, this involves a shift in emphasis away from conventional proxies for learning, such as credit hours and contact hours, and toward greater reliance on assessment of knowledge and skills. For all education, learning rather than time should increasingly become the basis for the transition from one level to the next. Accountability for all educational providers, including schools, colleges, universities, and for-profit institutions, will mean demonstrating gains in student knowledge and skills.[7] Defining accountability in terms of specific knowledge and

[7] The weaknesses of the current structure are among the most likely candidates for change: the weak or non-existent alignment of standards for high school completion and college admission, as well as ineffective provisions for student transfer from two-year to four-year institutions.

skills all students must acquire is an opportunity to extend and link into higher education the progress made in school reform on standards and assessment.

We do not advocate a single universal system of state accountability, nor do we believe that such a single system is desirable or possible. We do, however, suggest several characteristics that can make state-level systems more effective. These systems would:

- Be based on a "diagnosis"—a sense of the strengths and weaknesses of state populations on the level of educational capital achieved by all young and working-age adults;
- Publicly monitor changes over time—improvement or slippage—in the progress of the state's educational capital; and
- Disaggregate the performance results sufficiently to target problems and develop improvements at the appropriate regional and institutional levels.

Providing a Diagnosis

We suggest that states (and the nation as a whole) begin with public accountability systems that diagnose the strengths and weaknesses in the current stock of educational capital available for an effective and competitive workforce, and for the competent and ethical administration of the nation's democratic responsibilities.

The nation and the states have focused attention over the past 20 or 30 years on documenting the educational capital of their school-age children. The National Assessment for Educational Progress has given the nation and participating states a gauge to measure the mastery of specific content knowledge of fourth, eighth, and twelfth graders. Over 45 states now participate in at least one of the NAEP assessments.[8]

However, efforts to document the knowledge and skills of young adults (roughly ages 18 to 24) and working-age adults (ages 25 to 49) have not been given the attention commensurate with the demands of the new economy. The National Assessment of Adult Literacy is a measurement of specific adult literacy skills necessary for functioning in a complex society, but only twelve states participated in the program in 1992 and fewer in 2002.[9] This is the sole existing assessment of which we are aware that provides comparative information to states about the literacy levels of adults.

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[8] In 2002, 45 states participated in NAEP testing. See http://nces.ed.gov/nationsreportcard/about/statepartic2002.asp.

[9] See National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, http://nces.ed.gov/naal/state/state92.asp.

Much of the power of the NAEP and the NAAL assessments derives from their comparisons among states. Although each state can develop its own standards and assessments—and many have—progress along this path does not answer questions about whether or not young and working-age adults in any particular state are competitive nationally. Only the national population assessments that include state-specific information fulfill this requirement. Comparisons across states—and increasingly across nations—is essential to an effective national accountability system. The ability of states to compare their education systems with one another and with the nation is a powerful means to raise standards and prevent the inwardly looking, all-above-average, "Lake Wobegon" effect.

Three states recently published higher education report cards that put their state performance in the context of other states and the nation—a first step in making the appropriate diagnosis of the states' educational capital.[10] The New Mexico Report Card on Higher Education sets the goal that third graders must read at grade level before advancing and that more students must complete high school with a regular diploma; today, half of the ninth graders who start high school in New Mexico do not complete it (New Mexico Business Roundtable for Educational Excellence and the New Mexico Commission on Higher Education 2002). New Mexico's goals in K-12 education are linked with increasing the proportion of 18- to 24-year-olds enrolling in college.

Oklahoma also links the performance of its school-age population to higher goals for achievement in postsecondary education, and it presents a diagnosis that puts performance in the state in the context of other states and the nation (Oklahoma State Regents for Higher Education 2001). Additionally, the Kentucky Council on Postsecondary Education has published a report card that explicitly links the literacy performance of adults to improvement in participation and completion of some form of postsecondary education (Council of Postsecondary Education 2002).

What these states have done, and others are now beginning to emulate (e.g., Tennessee, West Virginia, Missouri), is to link access to, and success in, some form of postsecondary educatiion explicitly with student performance in high school. Except for these few examples, though, what seems to be missing in the public policy arena, particularly in accountability systems, is a connection across and among the educational sectors. Increasing educational capital for the entire population is a goal that would appear to require effectively linking, for collective action, the disparate and not-very-well-coordinated structures of education.

Few effective links exist today, but one promising example is found in the plans of the California State Universiity to administer its college placement exam to eleventh-grade students, and, by doing so, send clear signals about the requirements of college-level work. Results on the placement exams will

[10] For assistance in developing a staite diagnosis, see Jones and Paulson 2001.

determine who must take remedial-level work at CSU. This direct link between educational sectors provides students with the feedback necessary to correct educational deficiencies during the senior year in high school. The CSU plan is likely, at least initially, to reach college-bound students. Extension of future plans to include younger students may also be possible.

States may also choose to develop their own measures to assess their educational capital, particularly to account for regional information or to reach specific state goals. Similarly, colleges and universities might do so to assess progress toward institutional goals.

Our principal contention is that states should develop the capacity to compare their educational capital with that of other states and with the nation. To achieve an adequate diagnosis, we propose that the nation and individual states further develop accountability measures that include an assessment of the knowledge and skills of all young and working-age adults. One strategy to do this is to expand the NAEP and NAAL efforts. Because more states will participate in the NAEP fourth- and eighth-grade assessments as a result of *No Child Left Behind*, this option shows a great deal of promise. The twelfth-grade assessment is administered only on a national basis: consideration should be given to expanding this to the state level. In addition, expansion of the NAAL should include far more states than the handful that currently participate, and over-samples should be constructed to better reach specific populations (for example, college graduates). Other critical assessments could be developed at national, state, or institutional levels that would further contribute to understanding educational capital.

Kentucky's diagnosis of the literacy skills of college graduates moves in this direction. Kentucky was one of a handful of states that conducted a special administration, or over-sample, of the National Assessment of Adult Literacy to obtain state-specific information on adult literacy, including literacy by educational level. This permitted the state to pinpoint one of its most fundamental educational and social problems: the need to redesign its governance and finance policies to address literacy as a high priority, and to assign institutional responsibilities and monitor progress.

Monitoring Progress

Moving beyond broad assessments of the population and aggregated changes over time, it is also critical for states to invest—as many have—in individual unit record systems. These records would give states the capacity to track individual learners over the course of their education and career, regardless of the institutions or schools they attend. Social security records currently track individuals in the labor market, regardless of employers; unit records of learning outcomes have the capacity to track individuals' educational progress (in terms of attainment and achievement), regardless of the educational institutions attended.

Issues of privacy must be addressed to develop public confidence and support, as well as to protect individual data.

Thirty-nine states now have unit record systems that monitor student course progress in postsecondary education. Taken together, these account for over 70 percent of the enrollment in American higher education.[11] A number of data elements are common among the 39 systems, including basic demographic data and data on student completion of programs. The next step is within reach: linking these records with K–12 and following students through their postsecondary education experiences.

Use of Information for Improvement

With better assessments and individual student record systems, states and institutions will be able to use incentives and regulatory mechanisms, if necessary, to ensure that the knowledge and skills students acquire at one educational level transfer to the next. Current examples include counting Advanced Placement courses as college credits and facilitating the transfer of community college credits to colleges and universities that grant baccalaureate degrees. Incentives and regulation may be necessary initially to join educational sectors in ways that acknowledge that the acquisition of knowledge and skills at one level of education must link to the next level, regardless of the provider.

Florida and Texas probably have the best student unit record systems to track transfer success between community colleges and four-year colleges. Through these systems, both states can determine how many students transfer and graduate from higher education. The tracking systems contain details about the course-taking patterns of transfer students, provide clues to the barriers that students face, and provide a strong state-level accountability mechanism for measuring institutional progress on student transfer.

Changes in the Governance and Public Finance of Education

Information gained through improved reporting and tracking systems, while necessary, is insufficient for increasing educational capital. Other policy changes, particularly in the governance and financing of higher education, must parallel new information and accountability systems. These policies are likely to look very different across the country, for each state's configuration of higher education is unique. Within every state, however, policies in two critical areas should change simultaneously to support the development of multiple pathways: governance and finance.

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[11] Forthcoming study with results to be released in 2003 by the National Center for Higher Education Management Systems, Boulder, Colorado.

Governance and Decision Making

New structural arrangements to support the development of educational capital will be needed, particularly for focusing on developing multiple pathways. Existing structural and decision-making arrangements in higher education focus heavily on single-sector issues. In some instances, the separate community college and state university sectors developed after World War II to differentiate responsibilities and missions may inhibit cooperation and collaboration. Some reform efforts have treated the elements of the education system (e.g., high schools) as "trains on their own track." And many existing K–12 and higher education partnerships have little long-term viability: they lack ongoing financial support because they are voluntary; they lack stable funding bases; and they depend almost entirely on episodic leadership initiatives.

Examples of particularly successful initiatives, both dependent upon committed local leadership and foundation support to link K-12 and higher education, are found in El Paso, Texas, and in Georgia. Both are voluntary. The Texas initiative has produced concrete evidence of increases in student achievement, while the Georgia initiative holds the same promise for the future (National CrossTalk 1999).

- *The El Paso Collaborative for Academic Excellence*, a partnership that includes the University of Texas-El Paso, El Paso Community College, the three largest school districts in the area, and local business and civic leaders, has effectively documented how powerful the educational linkage concept can be. The collaborative involves education, business, and civic leaders in school-based, data-driven systems change. During the first three years, 60 percent of fifth graders in one of the poorest elementary schools participating in the collaborative (qualifying for the federal lunch program) passed the reading portion of the state-mandated Texas Assessment of Academic Skills (TASS), but three years later 94 percent passed. Similarly, the pass rate for fifth graders on mathematics exam jumped from 74 percent to 92 percent during the same time period. Findings such as these are common among schools in the collaborative.

  Founded by Susana Navarro and based at the University of Texas, El Paso campus, the collaborative has an annual budget of about $5 million, coming from private philanthropies and the federal government. The organization's board of directors includes superintendents of the three participating school districts, the president of El Paso Community College, the mayor of El Paso, and other business, civic, and religious leaders. The 25 core staff members primarily work with districts, schools, parents, and business. They provide professional development for teachers as well as on-site support for teachers and principals. They also provide businesspeople with opportunities to learn about schools and identify ways employers can help youth achieve. In addition, about 45 teachers

and administrators on the collaborative staff work in schools to support school and district improvement.

- *Georgia* has developed a somewhat different approach from El Paso in trying to link the various education sectors. The Georgia P-16 (preschool through college) initiative is an attempt to improve student achievement by addressing the scattered pieces of the whole education picture. The project includes business leaders, representatives from the University System of Georgia, the K-12 Department of Education, local school boards, the 33 technical school departments, and other state agencies. Each of 15 regional P-16 councils identifies state policies that further fragment the overall education system and tries to create change through established governing channels.

  Creating standards—both content and benchmarks for testing—is perhaps the most important task assigned to the regional councils. Georgia higher education leaders note that for the first time in their careers, professors and deans from fields such as history, physics, and literature are meeting with their counterparts in education schools and with public school representatives to work out the proper balance between subject-matter knowledge and instructional methodology. Since its inception, P-16 councils have addressed issues of block scheduling in the schools, the logical sequencing of math curricula, and other issues.

Both of these initiatives show that the interest and capacity to develop effective links between K-12 and higher education exist, but they also show the fragility of such efforts if leadership changes or foundation support disappears. The need to sustain and develop other partnerships requires attention to the state policy infrastructure.

As with accountability systems, there is no universally applicable formula for collaboration among, and linkages between, disparate educational entities, but there are structural approaches that encourage the development of educational capital through multiple pathways. Moreover, current decision-making and governance bodies in higher education, and to some extent, in K–12 education, are focused inwardly—that is, on the policies of single institutions or sectors—and overlook the linkages between levels and sectors, and the transitions that students must negotiate. The most likely effective structures: (1) feature an ongoing stakeholders' forum for advocating the educational health of the entire population, rather than one specific part of it; (2) rely on cross-institutional initiatives and funding (schools with colleges, community colleges with other public and private colleges and universities, and all educational institutions with business and civic efforts to improve education); and (3) have the ability to change policies, such as those inhibiting allocation and reallocation of resources.

We are not aware of a governing structure for K-12 and higher education that has resulted thus far in significant increases in student achievement or the creation of multiple pathways. The most visible statewide change toward this end occurred when Florida Governor Jeb Bush attempted to create an effective K-16 model of governance through a single state board with responsibility for all levels of education, while at the same time decentralizing significant authority to colleges and universities. In November 2002, however, the voters of Florida reestablished a statewide governing board for higher education. The jury is still out on the lessons that can be derived from Florida's "reform" and "counter reform."

Some state structures for higher education governance have been found to be more effective than others at raising issues of public interest that transcend institutional and sector interests. Illinois' "system of systems" has long been highly regarded and studied for its effective balance of issues related to the public interest with issues of institutional quality and diversity. That state's historically strong commitment to college access through student financial aid programs (current changes notwithstanding) reflects the public priority on financial aid for students, as well as appropriations to public institutions. Illinois has made the largest state commitment to providing financial aid for low-income students, as measured by federal Pell grant recipients also receiving a state grant. Its decision-making bodies, particularly the Illinois Board of Higher Education and its leadership in the "system of systems," are credited with this important outcome.

Higher education systems that are more highly "segmented," such as those in California or Michigan, are least capable of providing a forum to focus policies on public-interest issues beyond those of particular colleges and universities. While there are almost no commonalties in the decision-making structures of organization of these two states, each lacks an effective forum for addressing the broad public interest. Issues are framed either in terms of educational sectors, as in California, or in terms of individual institutions, as in Michigan. Systems that are highly segmented appear to lack capacity to systematically embrace the agenda for greatly increasing educational attainment through multiple pathways on a statewide scale.[12]

The Allocation and Reallocation of Resources

Public subsidies must be explicitly aligned with the goal of increasing educational capital. Specifically, financial incentives should encourage the creation of multiple pathways. Community colleges will play a critical role in the expansion of educational capital—both for young and working-age adults. At the intersection of high school learning and postsecondary education, they are the primary institutions for adult education in America. Community colleges take on greater

[12] For an expanded discussion of governance see Richardson, Bracco, Callan, and Finney 1999.

teaching loads, enroll more students, and provide more remedial and developmental education than other sectors of higher education.

State finance policies to utilize community colleges more effectively are needed. Two examples:

- Utah provides financial incentives for students who are ready to pursue college-level work while in high school. In the New Century Scholarship Program, eligible high school students earn an Associate of Arts or Science degree by the fall following high school graduation. The scholarship pays for up to 75 percent of tuition at state institutions, and students must maintain a "B" average in college-level work. Although Utah's innovative program offers incentives to the college-ready student and improves the educational productivity for those students, it does not, nor was it intended to, address the broader educational achievement needed from all students.

- Another innovative example of fast-tracking education for the college-ready is Washington's Running Start program. Without cost to the students, it allows eleventh and twelfth graders to take college courses at Washington's 34 community and technical colleges and Washington State, Eastern Washington, and Western Washington universities. The initiative reduces both the amount of time students spend in school and their college costs. According to state officials, in 2000-2001, students and parents saved $14.6 million in tuition and taxpayers saved $28.8 million because students take high school and college courses simultaneously. That same year, nearly 14,000 students participated in the program. Participants closely mirror the typical college population in the state as a whole (Washington State Board for Community and Technical Colleges 2001).

Utah and Washington provide financial incentives primarily to students and families. Changes in the state allocation for higher education must also become a part of the new policy infrastructure. If increasing the educational capital of the population becomes a central consideration in financing higher education, the institutions that can contribute most to this agenda must be funded adequately. Yet community colleges receive fewer resources for their instructional task on a per-student basis than do four-year colleges. Most states could benefit from a better understanding of how public higher education subsidies are allocated in relation to specific state policy goals and priorities. Scholarship programs such as those in Utah and Washington do not address, nor are they intended to, the question of adequate public subsidy to the institutions most called upon to increase the achievement of most adults. However, they do provide a way to get more education from every dollar spent—a necessary condition for greatly improving student achievement.

Adults who choose to increase their knowledge and skills will benefit economically from this investment and should be willing to share the responsibility of paying for it. A caveat: the adult who lacks a high school education is least likely to be able to pay his or her share. Until that basic level is achieved, little economic return is provided, and the responsibility for this basic level of education should rest with taxpayers. At increasing levels of education, a strategy of shared responsibility can be implemented, with individuals contributing more at the higher levels.

In California, a model of shared responsibility proposed to increase tuition at moderate and predictable levels but at a lower rate for community colleges, which serve the most economically disadvantaged students, and at increasingly high levels for the California State University and the University of California, which tend to serve higher-income students (California Higher Education Policy Center 1996). The model of shared responsibility, while differentiating the shares paid by different groups of students, also required increased investment of the state for educating far more students but more cost-effectively than in the past. The model also called for dramatic increases in institutional productivity through, for example, better use of facilities, faculty, and student time.

If the states and the nation are to serve more people through postsecondary education, cost effectiveness will be a necessity. Education must be affordable for states just as it must be for students and families. Public policy should encourage better use of time (including student time), better use of space (facilities sharing, greater use of existing campuses and facilities), and the cost-effective use of electronic technology. For example, a recently completed study of technology in higher education examined the 25 most common, high-demand courses students take early in their college experience. The researchers found that incorporating technology into course design as a substitute for some lectures and sections reduced costs while maintaining, and in come cases improving, the quality of student learning (Twigg 2002).

Conclusion: Changes in Policy Orientation

The national conversation about policy change to support the transition to higher levels of educational attainment is in its early stages. There are as yet no real-world models to cite, analyze, or emulate. More attention to the policy dimensions of this transition is needed. At this point, the best means for assessing and improving the various approaches to public policy is through critical discussion and debate, and by elaborating on the design of new policies.

The policies for accountability, governance, and finance described above differ fundamentally from those on which states now rely for their education systems. These proposed changes would represent a major reform of policy for the states and the country. Change will not come easily, nor will it come overnight. Furthermore, the public policy infrastructure that produced the world's most

envied and respected system of higher education will be vigorously defended against many of the proposals that we suggest.

The political obstacles should not be underestimated. State budget constraints are likely to continue well beyond the current fiscal crises. The public investments needed to increase capacity for education and training beyond high school and, ultimately, to raise levels of access and attainment will have to be found in a financially constrained, highly competitive budgetary environment (Jones 2003). Because large portions of the nation's potential college students will come from lower-income circumstances than prior generations of college students, excessive reliance on tuition or inadequate investment in need-based financial aid may create insurmountable obstacles to increasing enrollment, even if there is adequate college capacity. The need for higher education that is cost effective for the states as well as for students and families will challenge states to allocate their financial resources in ways that deliver high-quality higher education, as measured by student learning.

The tendency of more and more college and universities toward "mission creep," reducing the emphasis on undergraduate education, will also have to be curbed. And even in the face of tight budgets, incentives and financial support must be found for bringing schools and colleges together to develop multiple pathways to higher levels of educational attainment, for improving student preparation for college, and for easing transitions between schools and colleges. In short, purposeful and disciplined policy and funding strategies will have to overcome political inertia and resistance.

History suggests that initiative in public policy is a necessary condition for improving educational opportunity and achieving levels of educational attainment. Public policy greatly expanded access to higher education after World War II; it stimulated development of the world's greatest research universities; and it fostered the growth of community colleges. The suggestions offered in this paper call for public policies comparable to those that expanded higher education access and attainment in the postwar decades.

The goal today, though, is not to find a place for returning veterans in our nation's colleges and universities, nor is it to expand on a large scale the nation's capacity for university-based research. Rather, it is to provide at least two years of education beyond high school for almost every young and working-age adult who is motivated and able to benefit. With the commitment of political and educational leaders—reinforced by redesigned state policy frameworks—a dramatic increase in the nation's educational capital is feasible.

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